

REMARKS

The Examiner is thanked for his careful and very thorough Office Action. The Examiner is particularly thanked for the helpful suggestions regarding correction of the alleged informalities.

Claims 6-10 are rejected.

Applicant is adding narrowed Claims 21 and 22 that are entirely within the scope of Claim 6 and should not require a new search.

As requested by the Examiner, nonelected Claims 1-5 and 11-20 have been canceled without prejudice.

Art Rejections

The art rejections are all respectfully traversed.

Review of the References

Some of the major technical differences between the references applied and the disclosure of the present application will now be reviewed. Of course, these points in the specification do not define the scope or interpretation of any of the claims; they are listed merely to help appreciate the importance of the claim distinctions that will be reviewed thereafter.

Krall et al. (U.S. Patent No. 5,594,931) relates to an insert having a core made of a first grade of cobalt- or nickel-bonded tungsten carbide with a surface layer of a second grade of distinctively different cobalt- or nickel-bonded tungsten carbide. This patent does not disclose or suggest including an ultra-hard material in the surface layer.

Waldenstrom et al. (U.S. Patent No. 5,335,738) relates to a rock bit button for percussive and rotary crushing rock drilling with a body of cemented carbide at least partially covered with a diamond layer bonded to the body, with the help of an adherent material, at high pressure and high temperature.

If the undersigned attorney has overlooked a relevant teaching in any of the references, the Examiner is requested to point out very specifically where such teaching may be found.

Rejections Under 35 USC 102(b)

Claims 6-9 stand rejected under 35 USC Section 102(b) as anticipated by *Krall et al.*

The claim language of amended Claim 6 is not met. Specifically, Claim 1 recites "wherein said second end of said carbide component has an outer layer which is attached to said body without a transition layer or adherent material and which contains an ultra-hard material".

The Examiner has suggested that *Krall et al.* discloses a layer of ultra hard material bonded on a carbide body. However, this is incorrect. *Krall et al.* does not disclose or suggest an outer layer containing an ultra-hard material. Diamond and cubic boron nitride are examples of materials that are commonly acknowledged as ultra-hard materials. The contents of the liquid vehicle listed in Col. 6, ll. 12-18 of *Krall et al.* do not include an ultra-hard material.

According to the Federal Circuit:

For a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art.¹

Therefore, a prima facie case of anticipation has not been established by the Examiner. Accordingly, Applicant respectfully requests withdrawal of this rejection.

Finally, dependent Claims 7-9, which depend directly from independent Claim 6 and incorporate all the limitations thereof, also include additional limitations that are not shown or suggested by *Krall et al.*

Specifically, Claim 7 recites "wherein said carbide component has a binder content of less than 13%."

¹ *Motorola, Inc. v. Interdigital Tech. Corp.*, 43 USPQ 2d 1481, 1490 (Fed. Cir. 1997).

Krall et al. discloses an outer layer have a binder content of 4.9%. However, *Krall et al.* does not disclose or suggest a core carbide component having a binder content of less than 13%. This distinction is of particular importance in that once the outer layer has worn off, the core carbide component that remains will be of cutting-grade material. Therefore, the insert will be able to continue effectively cutting into the formation being drilled even after the ultra-hard outer layer has worn off.

Specifically, Claim 8 recites "wherein said carbide component has a binder content of less than 11%". Again, *Krall et al.* only discloses an outer layer having a binder content of 4.9%, not a core carbide component having a binder content of less than 11%.

Thus, for this reason, and for the reasons discussed above, Applicant respectfully requests withdrawal of this rejection.

Rejection Under 35 USC 103(a)

Claims 6-10 stand rejected under 35 USC Section 103(a) as being unpatentable over *Waldenstrom et al.* in view of *Krall et al.*

The Examiner has suggested that it would have been obvious to replace the ultra hard layer of *Krall et al.* with bare diamonds as taught by *Waldenstrom et al.* However, this is incorrect. As stated above, *Krall et al.* does not disclose or suggest an ultra hard layer. Therefore, there is no ultra hard layer to replace with bare diamonds.

According to the Federal Circuit:

Determination of obviousness can not be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention. There must be a teaching or suggestion within the prior, or within the general knowledge of a person of

ordinary in the field of the invention, to look to particular sources of information, to select particular elements, and to combine them in a way they were combined by the inventor.²

Accordingly, the Examiner has failed to establish a proper motivation for the suggested combination.

Finally, dependent Claims 7-10, which depend directly from independent Claim 6 and incorporate all the limitations thereof, also include additional limitations that are not shown or suggested by the asserted combination.

Specifically, Claim 7 recites "wherein said carbide component has a binder content of less than 13%." Neither of the asserted references, singly or in any motivated combination thereof, discloses a core carbide component having a binder content of less than 13%.

Specifically, Claim 8 recites "wherein said carbide component has a binder content of less than 11%". Again, neither of the asserted references, singly or in any motivated combination thereof, discloses a core carbide component having a binder content of less than 11%.

Thus, for this reason, and for the reasons discussed above, Applicant respectfully requests withdrawal of this rejection.

Claim 10 stands rejected under 35 USC Section 103(a) as being unpatentable over *Krall et al* in view of *Waldenstrom et al*.

The Examiner has failed to establish motivation for the suggested combination. Also, dependent Claim 10 depends directly from independent Claim 6 and incorporates all the limitations thereof.

² *ATD Corp. v. Lydall, Inc.*, 48 USPQ 2d 1321, 1329 (Fed. Cir. 1998).

Thus, for these reasons, and for the reasons discussed above, Applicant respectfully requests withdrawal of this rejection.

Conclusion

Thus, all grounds of rejection and/or objection are traversed or accommodated, and favorable reconsideration and allowance are respectfully requested. The Examiner is requested to telephone the undersigned attorney or Robert Groover for an interview to resolve any remaining issues.

Respectfully submitted,



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